

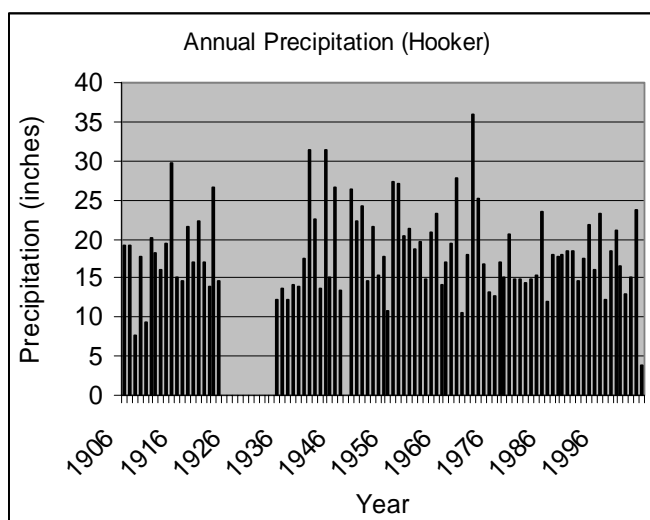
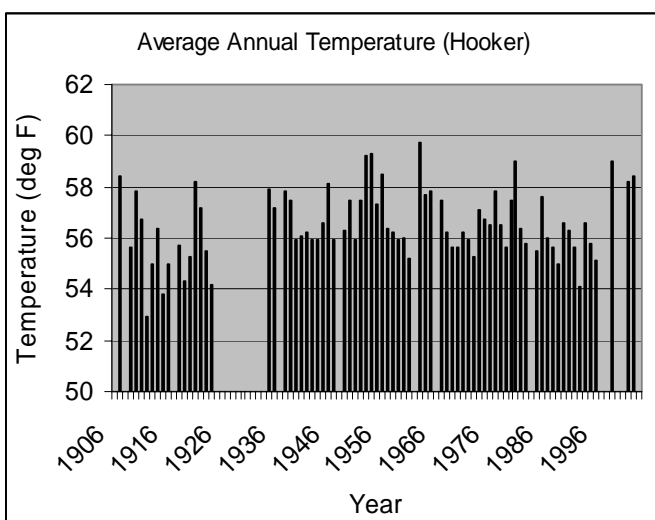
The Climate of Texas County

Texas County is part of the Western High Plains in the north and west and the Southwestern Tablelands in the east. The Western High Plains are characterized by abundant cropland and only slightly irregular terrain, while the Southwestern Tablelands are more irregular. Average annual precipitation ranges from about 15 inches in central Texas County to 21 inches in the east and northwest. May and July are the wettest months, on average, but much of the spring through fall receives sufficient rainfall. Nearly every winter has at least one inch of snow, with one year in two having ten or more inches.

Temperatures average near 57 degrees, with a slight increase from north to south. Temperatures range from an average daytime high of 94 degrees in July to an average low of 19 degrees in January. Texas County averages a growing season of 176 days, but plants that can withstand short periods of colder temperatures may have an additional three to six weeks.

Winds from the south to southwest are quite dominant, averaging just over eleven miles-per-hour. Relative humidity, on average, ranges from 28% to 88% during the day. During the year, humidity is highest in December and lowest in April. Winter months tend to be cloudier than summer months. The percentage of possible sunshine ranges from an average of about 70% in winter to nearly 80% in summer.

Thunderstorms occur on about 40 days each year, predominantly in the spring and summer. During the period 1950 - 2003, Texas County recorded 55 tornadoes. The most recent significant tornado (F2 intensity or greater) occurred on May 5, 1993. This F3 tornado passed nearly harmlessly through Texas and Steven (KS) counties. There were no injuries. Typically, there are about 5 events each year of hail exceeding one inch in diameter. As information collection improves, both the number of reported tornadoes and the number of severe hail events have increased.



Temperature (deg Fahrenheit)												
	AVERAGES (1971-2000)			EXTREMES (1906-2004)				AVG # DAYS PER MONTH (1971-2000)				
	Daily Max	Daily Min	Daily Avg	Record High		Record Low		Max>100	Max>90	Max<32	Min<32	Min<0
Jan	46.6	19.1	32.9	83	(31st, 1911)	-22	(4th, 1959)			6	30	1
Feb	52.9	23.8	38.4	90	(18th, 1907)	-16	(6th, 1982)			3	23	1
Mar	61.6	31.0	46.3	102	(19th, 1907)	-18	(7th, 1920)		*	1	17	
Apr	70.7	40.2	55.4	101	(23rd, 1989)	7	(2nd, 1936)	*	1	*	5	
May	79.0	50.4	64.7	105	(26th, 1953)	19	(1st, 1909)	1	4		*	
Jun	89.4	60.3	74.9	112	(25th, 1911)	35	(2nd, 1917)	4	15			
Jul	94.1	65.0	79.5	110	(21st, 1981)	48	(5th, 1924)	7	24			
Aug	92.3	63.5	77.9	110	(20th, 1911)	39	(30th, 1915)	5	21			
Sep	84.4	55.2	69.8	108	(4th, 1945)	29	(21st, 1983)	1	10		*	
Oct	73.5	42.5	58.0	98	(13th, 1910)	10	(28th, 1917)		2	*	3	
Nov	57.9	29.8	43.8	94	(7th, 1907)	-6	(28th, 1976)		*	1	19	*
Dec	48.3	21.5	34.9	85	(24th, 1955)	-15	(28th, 1915)			4	29	1
Annual	71.0	42.0	56.5	112	(Jun 25, 1911)	-22	(Jan 4, 1959)	17	78	15	127	3

Precipitation (inches)										
	AVERAGE	EXTREMES (1906-2004)			AVG # DAYS PER MONTH (1971-2000)					
	1971-2000	Monthly Max	Daily Max		any	meas	0.10"+	0.25"+	0.50"+	1.00"+
Jan	0.49"	2.84" (1944)	1.60"	(19th, 1990)	5	3	1	1	*	*
Feb	0.49"	3.43" (1948)	2.19"	(26th, 1912)	5	3	1	1	*	*
Mar	1.36"	7.09" (1973)	2.33"	(23rd, 2000)	6	5	3	2	1	*
Apr	1.57"	5.07" (1942)	3.25"	(29th, 1985)	6	5	3	2	1	*
May	3.02"	10.71" (1972)	4.30"	(11th, 1972)	9	8	5	3	2	1
Jun	2.50"	8.13" (2003)	4.73"	(9th, 1960)	8	7	5	3	2	*
Jul	2.51"	9.26" (1950)	3.85"	(14th, 1973)	7	6	5	3	2	1
Aug	2.11"	7.86" (1972)	5.00"	(24th, 1972)	7	6	4	2	2	*
Sep	1.79"	9.07" (1985)	3.49"	(2nd, 1916)	7	6	3	2	1	1
Oct	1.12"	7.99" (1946)	3.70"	(5th, 1946)	5	4	2	1	1	*
Nov	0.82"	4.79" (1948)	1.83"	(3rd, 1946)	5	3	2	1	1	*
Dec	0.55"	3.42" (1997)	2.75"	(19th, 1911)	5	3	2	1	*	*
Annual	18.32"	10.71" (May 1972)	5.00"	(Aug 24, 1972)	75	58	36	22	11	4

Snow and Sleet (inches)											
	AVERAGE	EXTREMES (1906-2004)				AVG # DAYS PER MONTH (1971-2000)					
	1971-2000	Monthly Max	Daily Max		Greatest Depth		any	meas	0.50"+	1.00"+	Pot. Glazing
Jan	4.1"	13.2" (1993)	12.0"	(19th, 1990)	22.0"	(7th, 1944)	3	2	2	1	3
Feb	3.6"	16.6" (1971)	12.0"	(1st, 1983)	14.0"	(5th, 1964)	3	2	2	1	2
Mar	3.7"	22.1" (1924)	11.3"	(9th, 1994)	13.0"	(10th, 1948)	2	1	1	1	1
Apr	0.9"	12.2" (1988)	10.0"	(2nd, 1988)	12.0"	(2nd, 1988)	*	*	*	*	*
May	0.1"	3.0" (1915)	3.0"	(6th, 1915)	2.0"	(3rd, 1978)	*	*	*	*	
Jun		0.0" (1951)	0.0"	(24th, 1951)							
Jul											
Aug											
Sep	0.0"	0.0" (1945)	0.0"	(28th, 1945)	0.1"	(22nd, 1995)	*				
Oct	0.1"	6.0" (1970)	5.0"	(9th, 1970)	2.0"	(31st, 1979)	*	*	*	*	*
Nov	1.5"	21.0" (1948)	12.0"	(18th, 1948)	11.0"	(18th, 1948)	1	1	1	1	1
Dec	3.4"	25.5" (1943)	14.0"	(19th, 1911)	19.0"	(27th, 1943)	3	2	2	1	3
Annual	17.4"	25.5" (Dec 1943)	14.0"	(Dec 19, 1911)	22.0"	(Jan 7, 1944)	12	8	7	6	10

TEMPERATURE AND PRECIPITATION

From Hooker Cooperative Observer Station (344298); June 1906 – February 2004

Latitude: 3652N Longitude: 10112W Elevation: 2994 ft

Exceedence values (2 in 10 years)				
Month:	Maximum Temperature Higher Than:	Minimum Temperature Lower Than:	Precipitation Less Than:	Precipitation More Than:
January	76	-10	0.06	0.70
February	81	-2	0.05	1.03
March	88	4	0.09	1.64
April	94	19	0.50	2.20
May	100	31	1.40	4.60
June	106	45	1.30	4.55
July	107	53	0.99	4.23
August	106	50	0.86	3.53
September	102	35	0.63	3.19
October	94	23	0.19	2.49
November	84	6	0.04	1.08
December	75	-4	0.10	0.81
Annual	108	-14	14.36	23.14

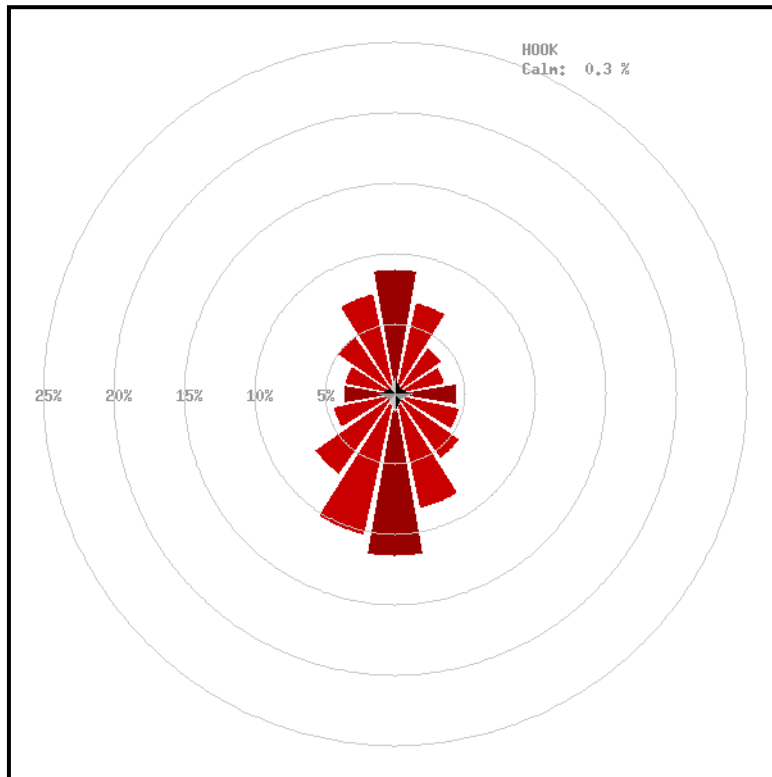
First Freezing Temperature in Fall			
Probability	24 F or Lower	28 F or Lower	32 F or Lower
1 Year in 10 Earlier Than –	October 22	October 15	October 1
2 Years in 10 Earlier Than –	October 26	October 20	October 8
5 Years in 10 Earlier Than –	November 6	October 26	October 18
Last Freezing Temperature in Spring			
Probability	24 F or Lower	28 F or Lower	32 F or Lower
1 Year in 10 Later Than –	April 15	May 3	May 12
2 Years in 10 Later Than –	April 10	April 24	May 4
5 Years in 10 Later Than –	April 1	April 12	April 22

Number of Days in Growing Season			
Probability	Higher than 24 F	Higher than 28 F	Higher than 32 F
9 Years in 10	196	174	157
8 Years in 10	201	184	163
5 Years in 10	219	198	176
2 Years in 10	235	208	188
1 Year in 10	241	222	197

WINDS

From Hooker Mesonet Site (HOOK); Jan 1994 – Dec 2001

Latitude: 3686N Longitude: 10123W Elevation: 2991 ft



Wind Roses show the prevailing direction from which the wind is blowing. North is up in the image. The circles show the percentage of time from which the wind is blowing in that direction. For example, Hooker records a south-southwesterly wind about 10 percent of the time, with northerly winds near 9 percent of the time.

The table below shows the percentage of time the wind is blowing from each of the 16-point compass headings, and the percent of time the prevailing wind is recorded in each speed bin.

Maximum Gust: 79.2 mph

Maximum Sustained: 64.0 mph

Overall Average Speed: 11.1 mph

HOOK	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Totals
Calm																	0.3%
1- 5 mph	0.6	0.7	0.6	0.5	0.6	0.6	0.6	0.6	0.6	0.5	0.6	0.6	0.6	0.6	0.5	0.6	9.2%
6-10 mph	2.4	2.4	1.9	1.8	2.3	2.4	2.6	2.8	3.2	3.1	2.5	2.2	2.1	1.9	2.1	2.2	37.9%
11-15 mph	2.5	2.3	1.3	1.1	1.2	1.3	1.7	2.7	3.6	3.0	1.8	1.1	0.7	0.9	1.3	1.9	28.4%
16-20 mph	1.8	1.0	0.3	0.2	0.3	0.4	0.6	1.5	2.5	2.1	1.1	0.4	0.2	0.2	0.5	1.3	14.4%
21-25 mph	1.0	0.3	0.0	0.0	0.1	0.1	0.1	0.6	1.3	1.2	0.6	0.2	0.0	0.1	0.2	0.7	6.5%
26-30 mph	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.4	0.3	0.1	0.0	0.0	0.1	0.4	2.4%
31-35 mph	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.2	0.7%
35+ mph	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3%
Totals	8.9	6.7	4.1	3.7	4.4	4.7	5.6	8.4	11.6	10.3	7.0	4.6	3.7	3.7	5.0	7.4	100.0%
HOOK	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
Max Gust	64	55	48	49	47	45	58	63	69	60	70	62	66	79	71	71	
Max 5 Min	50	38	36	36	34	36	38	45	41	45	52	43	52	64	56	56	
Avg Speed	13.1	10.5	8.8	8.7	8.5	8.9	9.5	11.6	12.9	12.9	12.1	9.7	8.2	8.7	10.8	13.1	

Due to rounding, column and row totals may not sum to exactly 100.0%.

HUMIDITY

From Hooker Mesonet Site (HOOK); Jan 1994 – Dec 2003

Latitude: 3686N Longitude: 10123W Elevation: 2991 ft

Mean Monthly Humidity and Moisture					
	Daily Maximum Relative Humidity	Daily Minimum Relative Humidity	Daily Average Relative Humidity	Daily Average Dewpoint (°F)	Daily Average Vapor Deficit
January	85	37	63	20	3.4
February	84	36	61	23	4.5
March	85	34	60	27	5.8
April	83	28	55	35	9.2
May	88	32	60	48	11.4
June	86	31	58	56	16.3
July	84	29	56	60	19.7
August	85	32	58	60	17.9
September	85	32	59	52	13.3
October	85	34	60	40	8.2
November	85	34	62	29	5.0
December	86	40	65	22	3.2
Annual	85	33	60	39	9.9

Vapor pressure is given in millibars.

SOIL TEMPERATURES

From Hooker Mesonet Site (HOOK); Jan 1994 – Dec 2003

Latitude: 3686N Longitude: 10123W Elevation: 2991 ft

Soil Temperatures at 10 cm (4-inch) depth				
	Average Temperature beneath sod	Average Temperature beneath bare soil	Average Daily Max Temperature	Average Daily Min Temperature
January	37	36	39	34
February	39	40	43	37
March	46	45	50	42
April	55	56	63	51
May	66	68	76	62
June	73	78	85	72
July	79	84	92	77
August	79	83	90	77
September	73	75	82	69
October	61	61	68	57
November	49	47	52	43
December	39	38	41	36
Annual	58	59	65	55

Average daily maximum and minimum temperatures based on bare soil.

TORNADOES

Significant Tornadoes (F2 intensity or greater) affecting Texas County, 1880 – 2003. Source: *Significant Tornadoes, 1880-1989: Volume I* and National Weather Service, Norman office.

Date	Path	Deaths	Injuries	Rating	Counties Affected
May 29, 1923	0.5 miles	0	1	F2	Texas
June 8, 1928	45 miles	2	6	F4	Baca (CO), Cimarron, Texas
June 4, 1932	25 miles	0	1	F2	Texas, Morton (KS)
May 22, 1933	9 miles	4	150	F4	Texas, Seward (KS)
April 26, 1938	60 miles	0	0	F2	Texas, Seward, Haskell (KS)
June 7, 1941	unknown	0	0	F2	Texas
June 7, 1941	40 miles	0	0	F2	Sherman (TX), Texas
May 31, 1942	5 miles	0	0	F3	Texas
May 15, 1949	60 miles	1	3	F4	Dallam (TX), Sherman (TX), Texas
May 14, 1951	unknown	0	0	F2	Texas
May 14, 1951	unknown	0	0	F2	Texas
June 5, 1951	unknown	0	0	F2	Texas
June 3, 1961	unknown	0	0	F2	Texas
July 3, 1967	unknown	0	1	F2	Texas
June 7, 1969	unknown	0	0	F2	Texas
November 19, 1975	0.3 miles	0	0	F2	Texas
March 18, 1982	70 miles	0	12	F4	Moore (TX), Sherman (TX), Hansford (TX), Texas, Beaver
May 5, 1993	12 miles	0	0	F3	Texas
May 5, 1993	19 miles	0	0	F3	Texas, Steven (KS)

About the Data:

The temperature and precipitation data from Hooker are from the National Weather Service Cooperative Observer station, which records daily maximum and minimum temperatures, precipitation, and snowfall. The station has been in operation since 1906, yielding a 97-year series of data. Extremes, frost and freeze data, and growing season lengths were determined using the entire 97-year series. The means for temperature, precipitation, and snowfall were determined using a subset of the series, from 1971-2000, corresponding with official national standards set by the National Climatic Data Center.

Wind and humidity data are compiled from the Oklahoma Mesonet station at Hooker (1 mile west of town), which has been operational since 1994. The Hooker Mesonet site was chosen to compliment the Cooperative Observer Data. An additional Mesonet site is located in Texas County at Goodwell. The Oklahoma Mesonet is a cooperative project between Oklahoma State University and The University of Oklahoma. Data are collected and archived at the Oklahoma Climatological Survey. The Mesonet records a variety of weather information at 5-minute intervals throughout the day, with at least one reporting station in every county in Oklahoma. For more information on the Mesonet, see <http://www.mesonet.org/>.

Solar radiation (sunshine) data were obtained from the *Climatic Atlas of the United States*, U.S. Department of Commerce, 1968. Severe storm information is available from the National Climatic Data Center, <http://www.ncdc.noaa.gov/>, under Weather/Climate Events: Climatology & Extreme Events, U.S. Storm Events Database. The best site for online county tornado information for Oklahoma is through the National Weather Service, Norman Office, <http://www.srh.noaa.gov/oun/tornadodata/>.

The tables and summary were prepared by the Oklahoma Climatological Survey. For more information, please contact OCS at 405-325-2541. Many climate summary products are available on the worldwide web at <http://www.ocs.ou.edu/>.

Need Additional Information?

If you cannot find what you need here, or want some help interpreting what this means for your particular needs, please contact:

The Oklahoma Climatological Survey
100 E. Boyd Street, Suite 1210
Norman, OK 73019-1012
Phone: 405-325-2541
E-mail: ocs@ou.edu

In addition to maintaining records of all weather and climate information for Oklahoma, OCS has a staff of climatologists who specialize in tailoring information for particular needs. Whether you want to know how dry it has been or are planning a construction project, OCS can help.